

Analysis of a Hospital Consultation Program

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APPRAISAL of the effectiveness of individual programs is one of the basic needs in public health administration. All too frequently programs are initiated without an accompanying plan for evaluation. Or they are perpetuated without critical review and analysis to determine whether the originally planned objectives are being achieved. While it is not always easy to stimulate the development of new programs, sometimes it may be equally difficult to discontinue or modify old programs that prove to be partially or totally ineffective; frequently the underlying reason is the lack of substantiating facts of an evaluative nature.

Evaluation of public health programs should provide answers to two basic questions: (a) Is the program making a significant contribution toward improving the health of the public served? (b) Is the program making good use of the tax funds expended for the purpose? It is logical that if the answers to both ques-

tions are affirmative an existing program should be continued. If the answers are negative, the program should be reviewed carefully and either modified significantly or discontinued.

Since 1952 the bureau for handicapped children of the New York City Department of Health has provided consultation to hospitals participating in the health department's program for orthopedically handicapped children. To assess the value of this hospital consultation program, we have examined the results thus far and are reporting the findings.

Background Information

The New York City Department of Health now spends approximately \$2 million annually for the hospital and convalescent care and rehabilitation of children with many other types of handicaps besides orthopedic—congenital cardiac, orthodontic, plastic surgical, hearing, cleft palate, epilepsy, drug addiction, visual, and miscellaneous types. Within this broad diagnostic list, the orthopedic category remains one of the larger groups because it represents the original program for handicapped children in New York City. Some of the other categorical programs are only a few years old. The bureau staff has developed hospital consultation for most of these categorical groups.

Hospital consultation has been carried on for many years in the fields of epidemiology and maternal and newborn care and for a shorter time in the field of general hospital care (because of the Hill-Burton Act). But to our knowledge the hospital consultation program

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for handicapped children in New York City is the first of its kind in the field of chronic disease in children.

The details of this program have been presented in another report (1), but briefly the hospital consultation program functions in the following manner:

1. An advisory committee recommends a set of standards.
2. A team of specialists surveys the institutional services in the particular fields concerned.
3. The team then transmits a letter of recommendations to the key personnel of the institution.
4. At a postsurvey conference, the specialists discuss the recommendations with the key members of the institutional staff.
5. The survey team conducts followup activities, depending on the needs and requests of the individual institutions.

In the bureau's consultation program in the orthopedic field, the services of 25 children's hospitals have been surveyed by a team composed of an orthopedic surgeon, a pediatrician, a physiatrist, a hospital nursing consultant, and a medical social worker. Letters of recommendation have been sent to the staffs of 24 hospitals, and postsurvey conferences have been held with the staffs of 22 hospitals. Of the 25 hospitals, 15 are large general hospitals; 5 are specialty hospitals devoted predominantly or exclusively to the care of the orthopedically handicapped; 4 are for chronic diseases and 1 for communicable diseases.

We have taken as the endpoint in this analysis the information collected at the postsurvey conferences.

Survey Recommendations and Results

The survey data have been subdivided into four headings for presentation: (a) policies and procedures; (b) personnel; (c) accreditation; (d) physical plant and equipment. These four headings represent the great majority of all the recommendations made. To arrive at a simple summary of the survey data, a function "hospital-items" has been used. It is the product of the number of hospitals times the number of items evaluated, recommended, or adopted in any particular subgroup. Thus,

in the policies and procedures group, 25 hospitals were surveyed and 15 items evaluated, that is, 375 hospital-items. In all, 189 hospital-items were recommended under the policies and procedures heading (50 percent of the 375 hospital-items evaluated in this category); 95 pertained to personnel (38 percent); 13 to accreditation (17 percent); and 12 to physical plant and equipment (24 percent).

Policies and Procedures

In the policies and procedures area a total of 91 recommendations pertained to inpatient service only, 63 recommendations to outpatient service only, and 35 recommendations to both services. Thirty-five percent of the recommendations were adopted by the hospitals (table 1).

For inpatient service, the recommendations of individual items varied in frequency from advising the team approach to patient care in 24 hospitals to advising improvement of social service and occupational therapy notes in 5 hospitals. Implementation of recommendations by the hospitals varied from 60 percent for improvement in social service records to 29 percent for developing a team approach to patient care. Changes were made most frequently as a result of the recommendations in the most specific, simplest, and superficial areas, such as recording of patient information. The least frequent implementation occurred in the conceptual area of patient care—the team approach, which signifies that the optimum care of the handicapped child requires the participation of many professional disciplines working together as a team.

Only about one-third of the hospitals in which the recommendations concerned the inpatient service improved their pediatric supervision of children and improved their pediatric notes. Also only one-third of the hospitals liberalized visiting hours for the parents of the children. Although this type of recommendation does not deal specifically with the orthopedic care of the child, its importance should not be minimized since the consideration of the "child" is as important as the consideration of the "patient." Too often the child leaves the hospital with a healed operative scar but with an unhealed scar resulting

Table 1. Recommendations regarding policies and procedures, 25 hospitals

Recommendation	Hospitals in which recommended		Hospitals applying recommendation	
	Number	Percent	Number	Percent
<i>Inpatient service only</i>				
Use team approach.....	24	96	7	29
Provide pediatric supervision.....	14	56	5	36
Liberalize visiting hours.....	14	56	5	36
Improve pediatric notes.....	10	40	3	30
Refer for vocational counseling.....	10	40	4	40
Improve physical therapy notes.....	9	36	3	33
Incorporate social service notes in patient's record.....	5	20	3	60
Improve occupational therapy notes.....	5	20	2	40
Total hospital-items (200).....	91	45	32	35
<i>Outpatient service only</i>				
Set up appointment system in orthopedic outpatient department.....	17	68	0	0
Establish children's orthopedic clinic.....	15	60	4	27
Set up conference in orthopedic outpatient department.....	14	56	4	29
Arrange for followup of broken appointments.....	10	40	3	30
Change cast at time of clinic visit.....	7	28	5	71
Total hospital-items (125).....	63	50	16	25
<i>Inpatient and outpatient services</i>				
Set up unit system of records.....	18	72	7	39
Referral to visiting nurse association.....	17	68	11	65
Total hospital-items (50).....	35	70	18	51
Grand total hospital-items (375).....	189	50	66	35

from failure to consider all his needs—social, psychological, and followup, as well as pediatric and therapeutic. Improvements in outpatient service only were recommended 63 times and carried out 16 times (25 percent). The most frequent recommendation, that of instituting an appointment system, was not applied in any hospital. Implementation was obtained in approximately one-third of the recommendations for (a) a separate children's orthopedic clinic; (b) an effective followup of children failing to keep clinic appointments; and (c) for developing clinic staff conferences. In seven hospitals it was recommended that, for the convenience of the child and his mother, cast changes, where indicated, be performed at the time of the clinic visit instead of requiring another clinic visit on another day; almost three-quarters of the hospitals adopted this procedure.

Two major recommendations applied to both the inpatient and outpatient services. One consisted of the referral of patients to the voluntary public health nursing agencies in the community for home followup, public health nursing supervision, and physical therapy. This recommendation was adopted in two-thirds of the instances. The other consisted of setting up a unit system of records in the hospital to provide continuity of recorded information in the hospital setting. This recommendation was carried out by 39 percent of the hospitals.

Personnel

A total of 95 recommendations pertained to personnel caring for orthopedically handicapped children and were carried out in 37 instances, or 39 percent (table 2).

The frequency of personnel recommendations

varied from the assignment of a pediatrician to the children's orthopedic clinic in 17 hospitals to the appointment of a qualified director of the anesthesia services in 4.

Where recommended, about 60 percent of the hospitals employed physical therapy staff and improved services for psychological testing of the children. About 50 percent improved the medical supervision of the hospital's department of physical medicine and rehabilitation and appointed a qualified director of the anesthesia service. About 40 percent appointed a qualified nurse in charge of the children's orthopedic service, provided 24-hour coverage of the service by a registered professional nurse, arranged for additional work experience in orthopedic nursing for the nursing staff, and employed an additional social worker for the children's orthopedic service. However, only one-fifth of the hospitals were able to develop a department of physical medicine and rehabilitation within the hospital or to assign a pediatrician to the children's orthopedic clinic.

Accreditation

Thirteen hospitals were counseled to seek accreditation by the American Board of Orthopedic Surgery or the American Board of Pediatrics or to seek a modified pediatric residency in affiliation with a hospital approved for this purpose within the community. None of these hospitals were able to fulfill any of these

recommendations, although 2 of the 6 hospitals tried to obtain approval for an orthopedic residency training program, and 1 hospital tried to obtain a pediatric resident on an affiliated basis (table 3).

No recommendations were made for residency approval in the specialty of physical medicine and rehabilitation because practically all of the hospitals with departments of physical medicine and rehabilitation are also approved for residency training in the specialty.

Physical Plant and Equipment

In 12 instances, improvements were recommended in the physical setup, divided equally between the inpatient and outpatient services (table 4). Three of the hospitals carried out the recommendation for the inpatient service and only one hospital for the outpatient service. In addition, during the survey period, two hospitals (one a large general hospital and the other a large specialty hospital) constructed entirely new buildings, and a third hospital (a large specialty hospital) undertook an extensive reconstruction program. In these three instances, the bureau staff participated in a review of proposed blueprints but could not be credited as being the instigating force for the change.

Illustrating the types of recommendations made for the inpatient service are: installation of running water in a large children's ward;

Table 2. Recommendations for personnel, 25 hospitals

Recommendation	Hospitals in which recommended		Hospitals applying recommendation	
	Number	Percent	Number	Percent
Assign pediatrician to children's orthopedic outpatient department.....	17	68	3	18
Provide 24-hour nursing coverage by registered nurses.....	16	64	7	44
Develop department of physical medicine and rehabilitation.....	10	40	2	20
Employ physical therapy staff.....	10	40	6	60
Appoint qualified charge nurse.....	9	36	4	44
Provide training in orthopedic nursing.....	8	32	3	38
Employ social worker.....	8	32	3	38
Improve psychological testing service.....	7	28	4	57
Improve medical supervision in physical medicine and rehabilitation.....	6	24	3	50
Appoint qualified director of anesthesia service.....	4	16	2	50
Total hospital-items (250).....	95	38	37	39

Table 3. Recommendations regarding accreditation, 25 hospitals

Item	Hospitals in which recommended		Number of hospitals applying recommendation
	Number	Percent	
Approval by American Board of Orthopedic Surgery.....	6	24	¹ 0
Approval by American Board of Pediatrics.....	3	12	0
Pediatric residency on affiliated basis.....	4	16	² 0
Total hospital-items (75).....	13	17	0

¹ Efforts made by 2 hospitals, not yet successful.

² Efforts made by 1 hospital, not successful.

Table 4. Recommendations regarding physical plant and equipment, 25 hospitals

Item	Hospitals in which recommended		Hospitals applying recommendation	
	Number	Percent	Number	Percent
Improve outpatient department facilities.....	6	24	1	17
Improve inpatient facilities.....	6	24	3	50
Total hospital-items (50).....	12	24	4	33

consolidation of the physical location of the orthopedically handicapped children from six different places within the hospital into one central service; provision of a modern operating room, more adequate facilities for physical therapy, and a more suitable plaster room; and removal of an "isolation cubicle" from the children's ward. The recommendations for the outpatient service include: more space in general, more examining space, more space for physical therapy activities, and more privacy for patient examination and interpretation.

Discussion

The results of the first survey of the children's hospital orthopedic services, the transmission of postsurvey recommendations, and the postsurvey conferences may be summarized as follows:

The hospitals put into practice 35 percent of the hospital-items recommended in the area of policies and procedures, more frequently those pertaining to inpatient service than to outpatient service. They adopted 39 percent of the

hospital-items recommended in the area of personnel and 33 percent recommended for physical plant improvement. None of the recommendations for accreditation by the American Boards of Orthopedic Surgery and Pediatrics were fully implemented although several hospitals tried.

That this degree of implementation was achieved is gratifying, particularly so because of the apprehension some of the hospital staffs expressed initially about the project. This communitywide survey of the children's hospital orthopedic service was the first in the history of the health department's program. The hospitals may have been apprehensive about the possibility that the New York City Department of Health might withdraw approval, with resultant loss of prestige and funds for patient care and of patient referral.

It was the impression of the survey team, however, that many institutions were genuinely anxious to improve their services. By discussing recommendations frankly, bringing all the medical and nonmedical personnel concerned together, and acquainting them with the suc-

cessful experiences of more efficient services, the team could help the chiefs of service and administrators plan and carry out important basic changes.

Intensive efforts of the survey team members, both as a group and individually, to interpret the purpose of the surveys dispelled some of the concern and apprehension, and the hospital staffs began to realize that the survey team's aim was constructive assistance. An important factor in success or failure of the survey technique and of hospital consultation in general is the interpersonal relationships established between the members of the hospital staffs and the members of the survey team. A friendly working relationship, professional respect, effective interpretation, sincerity, and technical knowledge are the essentials in determining success.

Frequently queried was the reason for the development of the hospital consultation program for handicapped children. The paying agency does have a responsibility in this field, both for helping to improve the care given the children and for guaranteeing to the taxpayer that the tax funds expended are being carefully and justifiably used.

The surveys disclosed several unexpected conditions: (a) An unevenness exists in the quality of care given the children by the group of hospitals; (b) children are being kept in the New York City hospitals longer than they need to be; and (c) more hospitals are approved for the care of orthopedically handicapped children in the New York City program than probably are needed.

Of these three findings, the hospital consultation program has been able to begin to cope with the first two, quality of care and overinstitutionalization. The excess of inpatient beds over the number of children requiring inpatient care is harder to solve. Most of these hospitals have been approved for participation in the orthopedic phase of the handicapped children's program for many years. Withdrawal of long-standing approval is usually difficult.

It is not surprising that more success was achieved in implementing the recommendations for the inpatient than for the outpatient services. In a large urban area the chief of the clinical service and his higher ranking staff usually do not participate personally in the realm of

outpatient care. This criticism of outpatient services is not only applicable to the institutions concerned, but it applies equally to the paying agency, which has supported inpatient care but has not yet accepted any financial responsibility for outpatient care. This is a curious policy since most orthopedically handicapped children in the lower income groups receive their medical care through the outpatient service, with only a small percent receiving inpatient care for briefer periods of time. Furthermore, the outpatient service has many roles to play in the care of orthopedically handicapped children—case finding, evaluation, and diagnosis; ongoing medical care and supervision; medical recommendations for special educational placement; and, theoretically at least, some responsibility for the care of the patient at home. Thus, if improvement in the care of orthopedically handicapped children is to progress significantly, outpatient care must be strengthened.

One of the expected findings was that hospital staffs are more immediately able to implement the simpler and more tangible recommendations, for example, improvement of patient records, than the broader and more complex recommendations such as the development of a team concept. While the term "team approach" has been used for many years, nevertheless, it is apparent that the concept has not yet been thoroughly understood in the care of the orthopedically handicapped child. Here, the value of a long-standing effective hospital consultation program can be truly demonstrated since continuing consultation and interpretation will be necessary to motivate the hospital staffs to develop their teams.

That no success was achieved immediately in the area of accreditation by the medical specialty boards is not surprising for several reasons: first, because it takes time for an institution to accomplish this objective, and, second, because there is the knotty problem of supply of approved residency training programs as opposed to the lesser demand for them quantitatively.

It was surprising that in such a brief period of time there was as much implementation of the recommended physical plant and personnel items, the two major areas in which the institution would have to spend the most funds.

Here too, much greater success was achieved in the inpatient than in the outpatient services.

That hospital consultation for orthopedically handicapped children is productive and has achieved some degree of accomplishment, even in its early phases, is clear. The greatest areas in need of further interpretation and strengthening include outpatient care, pediatric care,

development of departments of physical medicine and rehabilitation, and the team concept.

REFERENCE

- (1) Wallace, H. M., Losty, M. A., and Siffert, R. S.: Principles in a hospital consultation service. *Am. J. Pub. Health* 44:1434-1441, November 1954.

NRC Medical Research Fellowships

Applications for 1957-58 postdoctoral research fellowships in the medical sciences and radiology are being accepted by the National Research Council until December 1, 1956.

Awarded and administered by the Medical Fellowship Board and the Committee on Radiology of the Division of Medical Sciences, the fellowships include the following groups: national research fellowships in the medical sciences, supported since 1922 by the Rockefeller Foundation; the Donner fellowships for medical research, made possible by a new grant from the Donner Foundation; Markle fellowships in the medical sciences, provided through a new appropriation of the John and Mary R. Markle Foundation; and fellowships in radiological research, administered for the James Picker Foundation.

The first three of these programs offer research in the basic medical sciences for persons seeking careers in academic medicine and investigation. Fellows devote essentially full time to research at the fundamental level. Funds are not available to those wanting to get practical experience in clinical fields.

These awards, open to United States and Canadian citizens holding doctorates in medicine or philosophy or the equivalent, are not ordinarily granted to persons over 35 years of age.

Candidates for the radiological research fellowships must hold the degree of M.D., Ph.D., or Sc.D., or the equivalent. Preference is given to those whose training has been in the field of radiology, but persons from closely related disciplines are eligible to apply. There are no limitations as to citizenship, and the age limit is the same as in the other awards.

The fellowships are awarded in the early spring. Complete details and application blanks may be obtained from: The Division of Medical Sciences, Room 310, National Academy of Sciences-National Research Council, 2101 Constitution Avenue, NW., Washington 25, D. C.